

CLAIMS

What is claimed is:

- 5 1. A method for flexible allocation of a resource,
comprising the steps of:
obtaining a request for allocation of a portion
of the resource;
granting the request if the request if allowed
10 would not exceed a soft limit associated with a
potential user associated with the request, wherein
the soft limit guarantees access to the resource by
the potential user;
denying the request if the request if allowed
15 would exceed a hard limit associated with the
potential user, wherein the hard limit enables the
potential user to exceed the soft limit on a first-
come-first-served basis;
denying the request if the request if allowed
20 would cause a grand total allocation of the resource
to exceed a high watermark assigned to the resource
and granting the request otherwise.
- 25 2. The method of claim 1, wherein the step of
denying the request if the request if allowed would
cause a grand total allocation of the resource to
exceed a high watermark further comprises the step of
entering a reduction mode for handling a subsequent
request for allocation of the resource.
- 30 3. The method of claim 2, wherein the reduction
mode comprises the step of:

granting the subsequent request if the subsequent request if allowed would not exceed a soft limit associated with a potential user associated with the subsequent request;

5 denying the subsequent request if the subsequent request if allowed would exceed a hard limit associated with the potential user associated with the subsequent request;

10 denying the subsequent request if the grand total allocation of the resource is above a low watermark associated with the resource and granting the subsequent request otherwise.

15 4. The method of claim 3, further comprising the step of assigning the low watermark to the resource.

20 5. The method of claim 1, further comprising the step of assigning the soft limit to the potential user.

25 6. The method of claim 5, wherein the step of assigning the soft limit comprises the step of assigning the soft limit in response to a class associated with the potential user.

7. The method of claim 1, further comprising the step of assigning the hard limit to the potential user.

30 8. The method of claim 7, wherein the step of assigning the hard limit comprises the step of assigning the hard limit in response to a class associated with the potential user.

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9. The method of claim 1, further comprising the step of assigning the high watermark to the resource.

5 10. The method of claim 1, further comprising the step of allocating a portion of the resource for system use.

11. A computer system, comprising:
resource;

10 a set of resource allocation parameters for the resource including a high watermark for the resource and a hard limit and a soft limit associated with a potential user of the resource;

15 task that generates a request for allocation of a portion of the resource;

resource manager that in a normal mode grants the request if the request if allowed would not exceed the soft limit and denies the request if the request if allowed would exceed the hard limit and
20 denies the request if the request if allowed would cause a grand total allocation of the resource to exceed the high watermark and grants the request otherwise.

25 12. The computer system of claim 11, wherein the resource manager switches to a reduction mode if the request if allowed would cause the grand total allocation to exceed the high watermark such that the resource manager grants all subsequent requests that
30 reduce a consumption of the resource while in the reduction mode.

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